SAMA

Small Aircraft Manufacturers Association

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U.S. Department of Transportation
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Submitted to: http://dms/dot.gov

Re: Certification of Aircraft and Airmen for the Operation of Light-Sport Aircraft
Docket No. FAA-2001-11133; Notice No. 02-03.

Dear Sir or Madam:

These comments are submitted on behalf of SAMA's members, who manufacture small general aviation aircraft, engines, propellers, avionics, and other components and services for such aircraft. Several of SAMA's member companies anticipate producing Light-Sport Aircraft when this rulemaking is completed. SAMA has worked with FAA, and the other interested industry organizations, on the subject of this rulemaking for many years.

SAMA strongly supports the proposed rule on the "Certification of Aircraft and Airmen for the Operation of Light-Sport Aircraft" (LSA Rule). We believe that the proposed LSA Rule properly addresses the issues necessary to raise the safety bar for two seat aircraft weighing more than the Ultralight (Part 103) limit. We believe that the LSA Rule will support SAMA's goal of "expanding the market for small aircraft" by providing safe aircraft and pilots, appropriately trained for simple aircraft as defined in the LSA Rule. We commend the FAA, and specifically the managers and staffs of AFS-800 and the Small Airplane Directorate, for producing a comprehensive and workable approach to enable the certification of safe and affordable small aircraft for sport and recreational uses, and corresponding appropriate levels of training.

SAMA was founded in 1990 specifically to enable small aircraft designs to be certified in a way appropriate to their simple design and limited performance and use. SAMA and EAA sponsored and Small Airplane Certification Compliance Program, which had objectives similar to LSA. This program resulted in the FAA's approval of the Primary Category Aircraft (PCA) Rule, and various alternative airworthiness standards, such as JAR-VLA and TP 101-41. While the PCA rule permitted the certification of several new aircraft, including the Diamond Katana and Zenair CH 2000, it did not meet its objectives of greatly expanding the number of entry-level aircraft and new pilots. We believe that this was because there was no corresponding pilot certificate for the bottom end of the PCA aircraft (1200 airplanes), and because there were no standards for aircraft other than airplanes.

The LSA Rule addresses these shortcomings, and we believe it will be successful in both increasing the safety of aircraft produced today, and in encouraging the production of new light sport aircraft designs. We would like to specifically endorse the following aspects of the proposed LSA Rule.

1. The establishment of both experimental and standard airworthiness categories, both kits and fully assembled aircraft, for LSAs. This reflects differences in user construction preferences and operational use of the same aircraft designs, and the level of oversight and standardization the public expects based on the type of construction and use.

2. Generally selecting limits on speeds, weights and operational uses which should insure that LSAs are simple, affordable, and safe with lower levels of training and certification certitude. (Note that we make some suggestions for minor changes below).

3. The use of private consensus standards (with appropriate FAA involvement in their development) in place of conventional rulemaking, to create all of the airworthiness standards, certification procedures, and guidance materials needed to implement the aircraft certification portion of the LSA Rule.

SAMA is committed to supporting the development of these consensus standards, to supporting the LSA Rule and making it a success, and to assisting SAMA members in certifying their aircraft under the LSA Rule.

SAMA strongly encourages FAA to proceed expeditiously to issue this rule in final form. The Industry has discussed a goal of completing the consensus standards by the end of this year, and hopes FAA can complete this rulemaking in this time period. Finalizing the rule will enable manufacturers to make critical design decisions that cannot be made until uncertainty regarding the final gross weight and speed limitations has been ended.

Recommended Rule Revisions

The following are recommendations for revision of certain provisions of the proposed LSA Rule.

1. Maximum Takeoff Weight (MTOW)

EAA has recommended that the 1,232 pound maximum takeoff weight be increased to 1,300 pounds to enable a greater selection of available engines. We share EAA's objective of increasing the selection of engines available to airframe manufacturers, but are concerned that any change in the MTOW not change the nature of light sport aircraft or its regulatory treatment. SAMA's position is as follows:

a. In no case should any increase in MTOW be made that would jeopardize the proposed treatment of pilot medical certification for LSAs.

b. Weight increases to accommodate the inclusion of a ballistic parachute (about 40 pounds) and amphibious floats (80 - 100 pounds) should be permitted, but only if such items are included in the design, and with no increase in allowed speeds. This has precedent in the regulation of ultralights.

c. Any MTOW increase to permit wider engine selection should be made after FAA reviews the comparable weights of complete engine installations of alternative competitive engines, both in production and specifically planned for LSA aircraft upon completion of the rulemaking.

d. The MTOW that complies with the consensus standard should be stated for each make and model (e.g., floats, ballistic parachutes).

2. **Training: Expanded Exemption for LSA Training in Experimental Aircraft**

SAMA, EAA and NAFI hold an exemption for transition training in experimental aircraft. It is possible that the FAA will finalize the LSA Rule before aircraft are certified under the consensus standards and process. We propose that this exemption be expanded to allow initial flight training in experimental aircraft that meet the definition of LSAs to enable training to be conducted solely for LSA pilots immediately upon issuance of the final rule.

3. **Training: Make and Model Groups**

SAMA supports FAA's intent in requiring make and model endorsement for pilots, but believes this can be accomplished more efficiently by allowing endorsement by groups of airplanes with very similar operation and performance characteristics.

4. **Transition Period**

SAMA supports the FAA's intent to provide an adequate transition period for current two-seat ultralight trainers. In order to avoid economic hardship, the rule could be modified to provide for the longer of three years after issuance of the final rule, or 5 years after purchase of a two-seat ultralight trainer. This would provide sufficient time for the owner of a trainer plane to derive most of the value of a trainer (and then could sell it for personal use), and would correspond with the time period between FAA issuance of the proposed rule (which put persons on notice that the training exemption would be terminated) and the final rule.

5. **87 Knot Limit in Training Aircraft**

SAMA believes that this requirement would actually work against safety. We believe that it is more important that pilots get their "make and model" training in the aircraft that they will actually fly, not in a trainer with potentially substantially different characteristics. This would also require manufacturers to produce, and the training schools to buy, two different airplanes just to meet the training requirement – an unnecessary economic detriment that ultimately would be passed along to the consumer. Removing this limit would also enable a student to train in the aircraft he or she wants to buy, or has already purchased.

6. **Audit Standard Included as a Consensus Standard**

SAMA believes that the rule should include in the list of required consensus standards one for a private, independent audit of the certification compliance materials and quality system. We believe that a standard for an independent audit of the manufacturers statement of compliance is at least as important as a standard for acceptance testing of the aircraft in ensuring safety of the product. The hang glider industry requires an audit of compliance materials to receive USHGA certification, and LSA should do no less.

7. **Maximum Weight of Aircraft Certified to Foreign Standards**

Imported aircraft certified under foreign airworthiness standards with MTOWs less than permitted for LSAs should be held to the certificated MTOW, unless the consensus process specifically approves the use of the foreign standard to the higher MTOW. These airplanes, generally certificated to a MTOW of under 1000 pounds, should not be able to increase their gross weight to 1,230 pounds or more without further justification and approval in the consensus process.

8. **N-Number Size**

We support EAA's proposal for 3" high N-Numbers for the reasons stated in EAA's comments.

9. Single Retractable Landing Gear

We believe that to encourage LSA gliders, a particularly safe form of flight, the LSA Rule should permit a single retractable landing gear, but only if it can be retracted with no more than one lever or one electrical switch. This should meet the FAA's stated intent in prohibiting retractable landing gear of ensuring that LSAs are simple aircraft with little pilot workload. It would have a significant impact on the marketability of a LSA gliders.

10. Altitude Limit

The 10,000 foot MSL or 2,000 feet AGL limit should be revised to permit operations up to 3,000 feet AGL. This will support LSA gliders and provide additional safety when flying in mountainous areas, where distance about terrain is even more important in aircraft with light wing loadings.

11. Maximum Speed

FAA should consider replacing the top speed limit with a lower MTOW for single seat airplanes, of 750 pounds, which would effectively limit engine horsepower and thus top speed. In addition, the top speed will be difficult to enforce in the field.

Conclusion

Once again, we want to commend the FAA for proceeding with this important rulemaking and for preparing such a high-quality proposal, and encourage FAA to complete this rulemaking as soon as possible – with a target date of 1/1/03.

Sincerely,

Paul Fiduccia
President